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ABSTRACT

This publication is a check list for homeowners and renters to help them reduce energy costs. The list consists of 126 energy conservation options. These options range from "change clothes instead of adjusting thermostat" and "air conditioners turned off when not home" to "use sink stopper" and "weatherstripping and caulking applied." For each option, Degree of Expense (no expense, little expense, significant expense) and Degree of Payback (fair payback, good payback, excellent payback) columns are checked to illustrate the efficiency of each option. The most efficient option is one that is checked "no expense" and "excellent payback." The Degree of Implementation column allows the resident to indicate whether a particular option is used never, sometimes, or always. Once the check list is completed one can see where energy costs can be cut and how to cut them. (MR)

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SELECTED ENERGY CONSERVATION OPTIONS FOR HOMEOWNERS
-Options, Expenses and Payoffs-

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INTRODUCTION

If you are a homeowner or renter interested in saving energy and money, you should read through this comprehensive listing of energy conservation options. Place a check mark in the column indicating the degree of implementation for each option in your home. Then, by looking across the headings and columns, examine each option's degree of expense and compare with the projected degree of payback. Concentrate on: (1) the check marks in the "Never" column, and (2) the options which can be done at no expense with excellent payback, then on those with good payback. Keep records on energy consumed and saved for at least one year; for example, review past and present utility bills. Although the price of energy will no doubt continue to rise, you will save money by implementing some of the most cost-effective options. We hope this information helps you become a more energy efficient consumer.

Dorothy L. Lengyel Jonathan M. Wert Barry K. Worthington

ENERGY CONSERVATION OPTION	DEGREE OF IMPLEMENTATION			DEGREE OF EXPENSE			DEGREE OF PAYBACK		
	Never	Sometimes	Always	No Expense	Little Expense	Significant Expense	Fair Payback	Good Payback	Excellent Payback
1. Thermostat set below 68° in winter.				X					X
2. Thermostat set above 78° in summer.				X					X
3. Thermostat well calibrated.					X			X	
4. Thermostat set back at night to 55° in winter.				X					X
5. Thermostat lowered to 50° when away for long periods in winter.				X					X
6. Houseplants or water pans used to increase humidity levels.					X		X		
7. Dust removed from radiators.				X			X		
8. Furnace and air conditioner filters cleaned.					X			X	
9. Ventilator ducts and radiators turned off in unused rooms and doors closed.				X				X	
10. Outside doors closed quickly.				X				X	
11. Curtains open during the day and closed at night.				X			X		
12. Furniture arranged so it doesn't block air flow from vents.				X			X		
13. Keep windows tightly closed during winter.				X				X	
14. Fireplace dampers closed when not in use.				X					X
15. Prevent lights and candles from affecting thermostat.				X			X		
16. Window air conditioners on shady side of building.					X		X		
17. Change clothes instead of adjusting thermostat.					X			X	
18. Gas furnace pilot light turned off in summer.				X			X		

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	Never	Sometimes	Always	No Expense	Little Expense	Significant Expense	Fair Payback	Good Payback	Excellent Payback
19. Coal furnace fire door closed and ashes removed frequently.				X			X		
20. Air conditioners turned off when not home.				X					X
21. Furnace pilot light properly adjusted.					X		X		
22. Keep shades up in winter and down in summer.				X				X	
23. Radiators flushed to release trapped air.					X		X		
24. Turn water heater off when away for extended periods.				X				X	
25. Automatic night setback controls.					X				X
26. Chimney cleaned.					X			X	
27. Heating and cooling systems inspected and cleaned and filters replaced.					X				X
28. Weatherstripping and caulking applied.					X				X
29. Storm doors and windows installed.						X			X
30. Heavily lined drapes installed.						X		X	
31. Air ducts and heat pipes insulated.						X			X
32. Missing shingles, boards, windows, and siding replaced.						X		X	
33. Attic fan used in summer.					X			X	
34. Awning installed over windows.						X	X		
35. Venting installed in attic and for heat producing appliances.						X			X

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	Never	Sometimes	Always	No Expense	Little Expense	Significant Expense	Fair Payback	Good Payback	Excellent Payback
36. Heat pumps used to decrease heating and cooling loads.						X			X
37. Humidifiers installed to increase comfort.						X		X	
38. Vestibules added to reduce losses when doors are opened.						X			X
39. Sufficient roof insulation (R-33) in Pennsylvania.						X			X
40. Sufficient wall and floor insulation (R-19) in Pennsylvania.						X			X
41. Perimeter insulation around on-grade concrete floor slabs.						X			X
42. Solar collectors added to assist heating system.						X	X		
43. Landscaping to block winds and provide shade.						X		X	
44. Windows replaced with double glazed glass.						X			X
45. Use deciduous plants on south and west outside walls; evergreens on north and east outside walls.						X		X	
46. Install skirting around raised floors (mobile homes).						X			X
47. Turn out all unnecessary lights.				X					X
48. Keep lighting fixtures clean.				X				X	
49. Replace lights with low watt bulbs.					X			X	
50. Utilize sunlight fully.				X					X
51. Place lamps effectively.				X					X
52. Paint indoor walls light colors.					X				X

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	Never	Sometimes	Always	No Expense	Little Expense	Significant Expense	Fair Payback	Good Payback	Excellent Payback
53. Use energy saving light bulbs.					X			X	
54. Replace incandescent lights with fluorescent fixtures.						X			X
55. Replace multiple low wattage lights with fewer fixtures of increased wattages.					X		X		
56. Add skylights to supplement lighting.						X		X	
57. Hot water temperature control set below 130°.				X					X
58. Use hot water during off peak hours in your area.				X			X		
59. Repair leaky faucets promptly.					X			X	
60. Take showers instead of baths and use as little water as possible.				X					X
61. Put a brick in the toilet tank.				X				X	
62. Use a sink stopper.				X					X
63. Rinse dishes in cold water.				X					X
64. Use cold water laundry detergents.				X					X
65. Keep a pitcher of drinking water in refrigerator.				X					X
66. Have the water heater cleaned and inspected and drain bottom water off hot water tanks.					X			X	
67. Use a flow reducing shower head.					X				X
68. Water heater close to where hot water is needed.						X		X	
69. Insulate the hot water tank and pipes.						X			X
70. Buy higher efficiency water heaters.						X		X	
71. Drive 55 mph or lower speeds.				X					X

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72. Avoid rapid starts and stops.				X					X
73. Properly inflate tires.				X			X		
74. Participate in ride sharing programs.					X				X
75. Use public transportation.					X				X
76. Plan activities to reduce trips and mileage.				X					X
77. Keep from riding the brake and pumping the accelerator.				X				X	
78. Turn off engine when idling for more than one minute.				X				X	
79. Walk and ride bikes.				X					X
80. Avoid purchasing vehicle options that reduce efficiency: air conditioning, power steering, power windows, automatic transmissions.				X					X
81. Keep engine properly tuned.					X				X
82. Keep wheels aligned and balanced.					X			X	
83. Use recommended fuels.					X		X		
84. Buy compact energy efficient vehicles.						X			X
85. Buy radial tires.						X		X	
86. Adjust gas stove flames until solid blue.				X					X
87. Use appliances according to manufacturers directions.				X					X
88. Keep dust off refrigerator/freezer coils.				X			X		
89. Use exhaust fans as little as possible.				X				X	

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	Never	Sometimes	Always	No Expense	Little Expense	Significant Expense	Fair Payback	Good Payback	Excellent Payback
90. Defrost foods before cooking				X					X
91. Cook oven dishes all at once.				X					X
92. Use small appliances instead of the oven.				X					X
93. Avoid using the oven for space heating.				X					X
94. Air dry dishes.				X					X
95. Disconnect and empty the refrigerator when away for long periods.				X					X
96. Regularly defrost your freezer.				X				X	
97. Clean dishwasher screens.				X			X		
98. Wash only full loads of dishes and clothes.				X					X
99. Dry clothes in consecutive loads and keep lint trap clean.				X					X
100. Dry clothes outside.				X					X
101. Use washers and dryers during off peak hours in your area.				X				X	
102. Wash dishes by hand.				X					X
103. Keep refrigerator and freezer door gaskets in good condition.					X			X	
104. Turn off ovens and burners immediately.				X					X
105. Limit oven preheating to five (5) minutes.				X					X
106. Keep heat reflector below burners clean.				X				X	
107. Fit pots and pans to burner size.				X				X	

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108. Open refrigerator, freezer, and oven doors only when necessary.				X					X
109. Cover pots and pans with lids.				X					X
110. Use convenience appliances as little as possible (i.e. electric can opener).				X					X
111. Eat uncooked foods when possible.					X				X
112. Power tools clean and in proper condition.					X			X	
113. Power mower and saw blades sharp.					X				X
114. Turn power tools off when not in use.				X					X
115. Use hand tools instead of power tools.					X				X
116. Buy tools with the lowest required horsepower.					X			X	
117. Turn off all appliances when not in use.				X					X
118. Use organic compost instead of fertilizer.				X					X
119. Avoid packaged, pre-cooked foods.				X					X
120. Avoid overpackaged goods.				X					X
121. Save recyclable and reusable items.				X					X
122. Roll up old newspapers and use in the fireplace.				X					X
123. Avoid elevators as much as possible.				X			X		
124. Buy long-life products instead of disposables.						X			X
125. Buy products made from recyclable material.					X		X		
126. Consider energy efficiency when making purchases: black and white TV, avoid instant on color TV, buy automatic ignition on gas range, refrigerators with power saving switches.					X				X